

## T09D02 – 9.3 Practice

Name.....

1. A part of the reactivity series of metals, in order of decreasing reactivity, is shown below.
- magnesium
  - zinc
  - iron
  - lead
  - copper
  - silver

If a piece of copper metal were placed in separate solutions of silver nitrate and zinc nitrate

- (i) determine which solution would undergo reaction.

(1)

- (ii) identify the type of chemical change taking place in the copper and write the half-equation for this change.

(2)

- (iii) state, giving a reason, what visible change would take place in the solutions.

(2)

(Total 5 marks)

***Below are two questions in which you will need to refer to your book in order to answer. We will cover the material next class but it is important that you read through the chapter and be able to begin each of the problems below.***

2. (i) Draw a diagram of apparatus that could be used to electrolyze molten potassium bromide. Label the diagram to show the polarity of each electrode and the product formed.

(3)

- (ii) Describe the **two** different ways in which electricity is conducted in the apparatus.

(2)

- (iii) Write an equation to show the formation of the product at each electrode.

(2)

(Total 7 marks)

3. (i) Solid sodium chloride does not conduct electricity but molten sodium chloride does. Explain this difference, and outline what happens in an electrolytic cell during the electrolysis of molten sodium chloride using carbon electrodes.

(4)

- (ii) State the products formed and give equations showing the reactions at each electrode.

(4)

- (iii) State what practical use is made of this process.

(1)

(Total 9 marks)